REMARKS

Claims 1, 3-17, 19-26, and 38-49 remain pending. Favorable reconsideration is respectfully requested.

Applicants wish to thank Examiner Fronda for the indication that Claims 1, 3-6, 10-12, 16, 17, 19-22, and 26 are allowed and that Claims 42 and 47 are allowable (paper number 14, page 3, numbered paragraphs 7-8).

The rejection of Claims 13-15 under 35 U.S.C. §112, first paragraph, is traversed.

Applicants note that the claims of the present invention relate, in part, to polynucleotides that are 70%, 80%, or 90% identical to the polynucleotide of SEQ ID No: 1, *wherein the homologues encodes a protein which has the activity of the RodA cell division protein*. It appears that the Examiner has missed this fundamental aspect of the claimed invention.

In making this rejection, the Examiner states "the specification does not provide guidance with respect to the specific catalytic/binding amino acids and the structural motifs which are essential for protein/enzyme structure and activity/function which must be perserved" (paper number 14, page 2, lines 24-26). In support of this statement, the Examiner focuses on the problems often associated with predicting protein function/activity from sequence, presumably arising from aberrant protein folding, and the necessity of conserving specific catalytic/structural amino acids. Even though this statement by the Examiner may be true, it is of no moment in this application.

As stated in the claims of the present application, the polynucleotides that fall within the scope of these claims are *only* those that: a) are 70% (Claim 13), 80% (Claim 14), or 90% (Claim 15) identical to the polynucleotide of SEQ ID No: 1, **and** b) encodes a protein which *has the activity of the RodA cell division protein*. Therefore, in order to fall within the scope

of the present claim, a polynucleotide must satisfy all the limitations of the claim. As such, the polynucleotides that the Examiner is concerning himself with, those without the activity of the RodA cell division protein, would not be within the scope of the present claims. As such the problems often associated with predicting protein function/activity from sequence are absolutely irrelevant.

To further support this misguided ground of rejection, the Examiner seems to imply that the present invention would require undue experimentation; however, the Examiner appears to be confusing the burden of "undue experimentation" with the "amount of work." In paper number 14, page 2, lines 21-25, the Examiner states: "The amount of experimentation to make the claimed polynucleotides is enormous... and entails deleting, adding, substituting... nucleotides in SEQ ID NO: 1... and determining whether the polynucleotide has the activity of the RodA cell division protein."

The Examiner's attention is drawn to In re Wands, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988), which states: "Time and difficulty of experiments are not determinative if they are merely routine." (see MPEP §2164.06). Again citing In re Wands, MPEP §2164.06 states: "The test is not merely quantitative, since a considerable amount of experimentation is permissible, if it is merely routine, or if the specification in question provides a reasonable amount of guidance with respect to the direction in which the experimentation should proceed."

Applicants point to pages 6-18 of the present specification which provide copious amounts of guidance and definition to make and identify polynucleotides that fall within the scope of the claims. Applicants also point to Examples 1-4 (pages 20-26) in which an actual isolation example is provided. Moreover, not only have Applicants provided method of screening for RodA protein activity, they have actually claimed this method in Claim 9 reproduced below for the Examiner's convenience:

9. A process for screening for polynucleotides, which encode a protein having the activity of the RodA cell division protein comprising
    a) hybridizing the isolated polynucleotide of Claim 1 to the polynucleotide to be screened;
    b) expressing the polynucleotide to produce a protein; and
    c) detecting the presence or absence of RodA protein activity in said protein.

Therefore, Applicants submit that the Office cannot reasonably maintain that the routine experimentation, requiring nothing more than a technician's level of expertise, would amount to undue experimentation, especially with the present specification in hand.

Accordingly, Applicants respectfully request withdrawal of this ground of rejection.

The rejection of Claims 26, 38, 39-41, and 43-46 under 35 U.S.C. §112, second paragraph, is obviated in part by amendment and traversed in part.

Applicants submit that Claims 26, 38, and 43 are fully compliant with MPEP §2172.01, and as such the dependent claims 39-41 and 44-46 are also compliant. In particular, the claims provide explicit steps for culturing the host cell and collecting the desired end-product (RodA protein or L-amino acids). In the culturing step, Applicants note that the claims provide that culturing is performed "for a time and under conditions suitable for" either: expression of the RodA protein (Claim 26) or production of L-amino acids (Claims 38 and 43). Inherent to the limitation "for a time and under conditions suitable for" would be a multitude of commonly employed, art-recognized steps including, but not limited to, the addition of the required nutrients, adjustment of temperature, and control of incubation time. Therefore, Applicants submit that Claims 26, 38, 39-41, and 43-46 are in full compliance with 35 U.S.C. §112, second paragraph.

Applicants request withdrawal of this ground of rejection.

The rejection of Claims 48 and 49 under 35 U.S.C. §112, second paragraph, is obviated by amendment.

With respect to Claims 48 and 49, Applicants have replaced SEQ ID No: 2 (protein sequence) with the appropriate sequence for the polynucleotide: SEQ ID No: 1. Accordingly, these claims are now appropriated.

Withdrawal of this ground of rejection is requested.

Regarding the Restriction Requirement, non-elected Claims 7-9 and 23-25 are method/process claims which depend from the elected claims. Although the Examiner has apparently chosen to ignore the fact that these claims are still pending, as evidenced by the failure to indicate that these claims have been withdrawn from consideration on page 1 of paper number 14, Applicants submit that they have never canceled these claims, nor has the Examiner ever been given authorization to cancel these claims. Moreover, Applicants remind the Examiner that MPEP §821.04 states:

> ...if applicant elects claims directed to the product, and a product claim is subsequently found allowable, withdrawn process claims which depend from or otherwise include all the limitations of the allowable product claim will be rejoined.

Since the elected claims are allowable, more particularly the claims from which Claims 7-9 and 23-25 depend (see paper number 14, page 3, numbered paragraphs 7-8), the non-elected claims *must* be rejoined under the provisions of MPEP §821.04.

An Information Disclosure Statement was filed in the present application on February 11, 2002. An acknowledgment of consideration of the references filed in this Information Disclosure Statement was requested in the responses filed on June 27, 2002 and on November 27, 2002; however the Examiner has yet to acknowledge consideration of these references.

Therefore, an acknowledgment that the cited references were considered is *once again* requested in the next communication from the Office.

Applicants submit that the present application is in condition for allowance. Early notification to this effect is respectfully requested.

Respectfully submitted,

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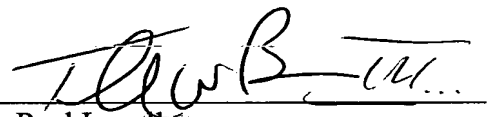

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IN THE CLAIMS

Please amend the claims as follows:

38. (Amended) A process for producing an L-amino acid, comprising

a) culturing the host cell of Claim 4 in a medium suitable for producing the L-amino acid and for a time and under conditions suitable for producing the L-amino acid; and

b) collecting the L-amino acid.

43. (Amended) A process for producing an L-amino acid, comprising

a) culturing the host cell of Claim 20 in a medium suitable for producing the L-amino acid and for a time and under conditions suitable for producing the L-amino acid; and

b) collecting the L-amino acid.

48. (Amended) An isolated polynucleotide, comprising at least 23 consecutive nucleotides of SEQ ID NO: [2] 1, having the function of a primer in a polymerase chain reaction to prepare or amplify a polynucleotide encoding a protein/polypeptide having the activity of the RodA cell division protein.

49. (Amended) An isolated polynucleotide comprising at least 23 consecutive nucleotides of SEQ ID NO: [2] 1 or the complement thereof, having the function of a probe in a hybridization reaction to isolate, detect, or determine a polynucleotide encoding a protein/polypeptide having the activity of the RodA cell division protein.